

### **REMARKS/ARGUMENTS**

In view of the following remarks, reconsideration and allowance of the claims is respectfully requested.

Claims 1 – 48 stand finally rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,512,110 to Heikkila et al. in combination with U.S. Patent No. 4,294,654 to Turner. Applicants respectfully traverse this rejection and request that the Examiner reconsider the rejections in view of the following remarks.

In the final Office Action, the Examiner maintains that it would be obvious to substitute the wood pulp of Turner for the pulp of Heikkila because the prehydrolyzed hardwood pulp of Turner allegedly allows for greater ease of the raw material for the preparation of paper products. In maintaining the rejection, the Examiner fails to address the numerous technical reasons why one would not modify Heikkila as suggested by the Examiner. The Examiner also fails to address the Declaration of Dr. Li in which declaratory evidence was provided to establish why one of ordinary skill in the art would not be motivated to combine the references. In fact, the Declaration of Dr. Li was completely ignored by the Examiner. In reconsidering the rejections, it is respectfully submitted that each of the following points considered individually provide sufficient basis for withdrawal of the rejections.

1) Heikkila and Turner are directed to two very different and distinct purposes. As noted in paragraphs 8-9 of Dr. Li's Declaration, the process and objective of Heikkila is quite different from the problem addressed by Turner, namely the removal of lignin from prehydrolyzed pulp using oxygen and ultraviolet light, whereas Heikkila is directed to using a xylanase treatment to recover xylose from a paper grade pulp. These two processes are completely different from each other and they include no teachings that would lead one of ordinary skill to combine them as contemplated by the Examiner.

2) Heikkila repeatedly emphasizes the benefits and advantages of using a paper grade pulp for the recovery of xylose. Heikkila specifically teaches that it is the enzymatic treatments of paper grade pulp that results in the significant recovery of xylose. In contrast to Heikkila, Turner's pulp is a prehydrolyzed (i.e., dissolving grade pulp). Accordingly, one of

skill in the art would not be motivated to substitute the paper grade pulp of Heikkila with the prehydrolyzed pulp of Turner.

3) Heikkila includes numerous statements that lead away from using a dissolving-grade pulp (i.e., a prehydrolyzed pulp) because the processes involved in the prehydrolysis process results in decomposition of the hemicellulose components, such as xylan. See column 2, lines 41 – 44 of Heikkila.

4) One of the preferred objectives of Heikkila is the simultaneous recovery of xylose along with the production of a dissolving grade pulp. See column 5, lines 43 – 49 of Heikkila. Thus, one of the objectives of Heikkila's process is the simultaneous production of both xylose and a dissolving grade pulp. Dr. Li's Declaration of October 31, 2007, provides evidence that a prehydrolyzed pulp is a dissolving grade pulp. As such, one of ordinary skill in the art would not select the use of a dissolving grade pulp (i.e., the prehydrolyzed pulp of Turner) as a starting product in the process of Heikkila. See paragraph 8 of Dr. Li's Declaration.

And

5) Using the prehydrolyzed pulp of Turner in the process of Heikkila would result in the pulp being unsatisfactory for its intended purpose. In the Declaration, Dr. Li states that substituting Turner's prehydrolyzed pulp for a paper grade pulp in the process of Heikkila would result in significant loss of pulp viscosity, which would render the resulting pulp unusable. See paragraph 9 of Dr. Li's Declaration.

The above points clearly show that the rejection based on the combination of Heikkila and Turner is inappropriate, and therefore should be withdrawn. Applicant also submits that the Examiner has provided no reasonable basis which would motivate one of ordinary skill in the art to make the proposed modification. The Examiner has attempted to gloss over this lack of motivation by stating that Turner teaches that the use of prehydrolyzed pulps are known in the art. However, the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (U.S. 2007), stated that in making an obviousness rejection, the Office must provide an explicit basis for making the combination. The Office has failed to do this. The fact that procedures involving a prehydrolyzed pulp may be known is not sufficient basis to provide motivation to use the pulp of Turner in the process of Heikkila. This is particularly true given the numerous

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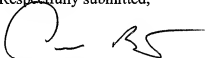
reasons set forth by Dr. Li why one of ordinary skill in the art would be motivated to not make such a modification. Accordingly, the rejections should be withdrawn.

In view of the foregoing remarks, it is respectfully submitted that the Applicant has overcome the rejections under 35 U.S.C. § 103(a) and that the pending claims are in condition for allowance.

***Conclusion***

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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